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07/17/00

# Cache Conservation News
# Summer 2000

*A newsletter of the Blacksmith Fork and North Cache Soil Conservation Districts*

***Every day is Earth Day for Farmers and Ranchers***

## FROM THE CHAIRMAN

*By Gordon Zilles, Chairman*
*Blacksmith Fork Soil Conservation District*

Urban growth and current economic trends paint a grim picture for many family farms.

But perhaps we can all learn a survival lesson from a farmer in Nebraska, who, when faced with development pressures, fought back with a spruce-up of his family's operation and a proactive marketing campaign.

The Meduna family of Weston, Neb., feared their 160-acre farm on which they raised crops, cattale and a handful of hogs would become endangered when a developer purchased 80 acres next door. The solution? Expand their hog operation. After all, no one wants to live next door to hogs, right?

The Medunas set out to gain the support of their existing neighbors. They explained that odor problems would be eliminated through a strict diet and flies controlled by free-ranging chickens. They restored and painted historic old barns red and white. They turned two old buildings into farrowing-nursery barns. They erected an old-fashioned windmill and urged the local newspaper to write a story on their focus on a traditional farm look. They actively solicited their neighbors' support and invited them to learn more about their farm. In short, they set out to make their neighbors love their farm.

In the end their proactive approach worked. They not only saved but also expanded their family farm and raised community awareness of the value of its agricultural heritage.

The lesson to be learned is that there are times and places where farms, not subdivisions, belong. It takes extra effort by individual farmers to present a positive image for agriculture, but the reward may be the preservation of the family farm.

*Note: The complete story on the Meduna family in the May/June edition of* Farm Journal *magazine is available at the UACD office, 1860 N. 100 East, North Logan.*

## Drought relief requested

The USDA Farm Service Agency has requested disaster assistance for Cache Valley farmers. Since October of 1999 the county is averaging only 50 percent of normal rainfall according to Bruce Lundquist, the Agency's executive director for Cache County.

Dry-farmed barley and alfalfa crops are already threatened. There will probably be no second cutting of alfalfa, and grain production will be drastically reduced.

Lundquist has asked USDA in Washington to allow emergency haying and grazing on Conservation Reserve Program lands to help make up for the lack of other feed.

A decision from Washington is expected within the week.

## EXTENSION CORNER

***Sulfur Deficiency Becoming More Prevalent***

This spring I have been called out to look at several grain and alfalfa fields where the crops were yellow and not growing as well as expected.

Soil samples were collected from these fields and analyzed. In almost every instance, the problem was identified as sulfur deficiency. On some of the fields a sulfur fertilizer was applied. The plants on these fields responded to the application of Ammonium sulfate (24 percent sulfur).

Alfalfa and grain plants that are deficient in sulfur will be characterized by short, light-green plants with thin stems. Roots are also smaller and less developed. Sulfur deficiency reduces both yields and protein content. In a study at Utah State University, sulfur-deficient alfalfa had a protein content of 18.2 percent while the fertilized alfalfa had a protein content of 26.7 percent.

Most of the sulfur-deficient areas in Cache County have been found along the east and west bench areas. Most of the crops are non-irrigated or irrigated with water from the pristine canyon streams.

Sulfur deficiency can be identified through a soil test. Individuals who suspect they have a deficiency can apply ammonium sulfate (24 percent sulfur) at the rate of 25 to 50 pounds sulfur per acre. This form of sulfur will bring a faster response than elemental sulfur. Elemental sulfur is considered a slow-release form and must be converted to a plant-available form by bacteria in the soil.

—Don A. Huber
Cache County Extension Agent

*Don Huber retired at the end of June after 39 years in the USU Extension Service—22 years in Cache County. Don has served on many committees, and advised many landowners. We will miss him. The members of the conservation district boards appreciate Don's years of service, and hope he enjoys a long and satisfying retirement.*

## Have your well water tested for free

The state of Utah has funded the testing of farm wells, springs, and other sources of water at no cost to the owner. "Most wells in Utah were tested when they were first developed," says Ivan D. Sanderson, environmental practices specialist for the Utah Department of Agriculture and Food. "But most have not been tested since then," he continued, "and they may be 30 or 40 years old, or even older."

The wells are tested for inorganic dissolved solids, pesticides, *E. coli* and coliform bacteria, and nitrates. The test for pesticides alone is a value of $600 to $2000, and is funded by the federal Environmental Protection Agency (EPA).

The test is voluntary, free of charge, and confidential. A complete report of the test is provided to every participating well owner. The test data will be kept in a state-wide data base on the quality of the state's waters, but the well owners will not be identified.

For more information, and for an application form, contact UACD coordinator Penny Trinca at 753-6029. After 20 or more completed applications have been received, the Dept. of Agriculture and Food will make the tests.

# ACTION BY THE BOARDS OF SUPERVISORS

***Joint Action***

- Sponsored well water testing program for private wells.
- Nominated three persons to serve on the Cache County Water Policy Advisory Board.
- Approved participation in an exhibit at the county fair.
- Approved redesigning and a new slogan for the Cache Conservation News masthead.
- Sponsored a teacher to attend the National Agriculture in the Classroom conference.

***Blacksmith Fork***

- Reviewed status of remaining Section 319, Continuous CRP and EQIP funds.
- Sponsored an informational meeting at Paradise on a proposed EQIP priority area for the control of medusahead rye.
- Approved conservation plans for Jerry Peterson, Margaret Robbins, and Tom Maughan.
- Approved setting up a library and data base for the Little Bear River.
- Sponsored two Mountain Crest High School teams to the Utah Envirothon.

***North Cache***

- Sponsored the Logan High School team to the state Envirothon.
- Approved conservation plans for Lyman Godfrey, Ted Andrew, Melvin Mecham, Chad Godfrey and Wendell Hansen. Plans for Paul Keller and Brooks Tarbet were approved for planning.
- Reviewed the previously approved plan of Herbert Creech
- Approved a rental agreement for the “stinger” (available to cooperators for planting willows in riparian areas).
- Sponsored a public meeting in Newton to determine landowners support for stream bank stabilization and habitat improvement in Newton and Amalga areas.
- Elected Shane Munk as treasurer, replacing Joseph G. Larsen, who continues as a member of the board.

## Landowners asked to watch for medusahead

If you notice a patch of green annual grass after other annual grasses have matured, you may be looking at medusahead rye. Medusahead is a virulent weed, unpalatable to animals, that can cause reduction of grazing capacity of more than 75 percent. If a small patch is not promptly controlled, it will spread quickly into large areas, crowd out all other plants, and will become virtually impossible to control.

Surveys, still incomplete, have found 840 acres infested with medusahead on 39 properties in southern Cache Valley.. Control is accomplished by burning the dense thatch formed by the weed, spraying with Oust to prevent medusahead germination, and seeding with desirable grasses.

Treatment has begun on more than 300 acres in southern Cache County, including research plots to refine application rates of herbicides, to determine how soon grasses can be seeded after herbicide treatment, and to demonstrate the most promising control methods.

The medusahead project has been approved by the local work group for financial and technical assistance. For more information contact Jeff Barnes at NRCS (753-5616) or Joel Merritt, at the Cache County Weed Control office (716-8342).

## Water conference coming to Logan

"Water Quality from the City to the Farm" is the theme of the 11th annual Utah Nonpoint Source Water Quality Conference scheduled for July 18–20 at the Eccles Conference Center at Utah State University, Logan.

Phase II storm water regulations and concentrated animal feeding operations are the major topics to be discussed. Rebecca Hanmer, Denver, acting regional administrator for EPA Region 8 will discuss "The Clean Water Act in a Changing World" at the opening session.

Three concurrent sessions will discuss stormwater, animal feeding operations, and other watershed efforts. Tours and a barbecue are also scheduled. Contact Jack Wilbur, (801)538-7098.

## All-female Logan team wins Utah Envirothon

An all-female team from Logan High won the Utah Envirothon, a statewide natural resource competition. The team, sponsored by the North Cache Soil Conservation District, will represent Utah at the Canon Envirothon in Nova Scotia in August.

This year's Utah Envirothon was held at Farmington Bay Waterfowl Management Area last May. Thirteen teams participated and were tested at five in-the-field stations on their knowledge of forestry, soils, aquatics, wildlife and this year's current environmental issue, wetlands management.

Uintah High School placed second and another team from Logan High, made up of all freshmen, placed third overall. Members of the winning Utah team are: Amber Westenskow, Mary Cheney, Nelda Ault, Janelle Durst and Claire Neuber. Logan High science teacher Jack Greene is the team adviser.

"The Envirothon provides students with the knowledge and skills to make wise decisions regarding our natural resources," said Bruce Karren, North Cache district chairman. "It's a fun way for high school students to learn about conservation and develop a better understanding of land management decisions."

The Canon Envirothon is the largest high school natural resource competition in North America and is sponsored in Utah by the Utah Association of Conservation Districts. More than 55 U.S. states and Canadian provinces will gather in Wolfville, Nova Scotia, July 31-Aug. 6 to compete for the international title.

--Jennifer Hines, UACD

## Spring Creek study to begin

The Utah Division of Water Quality has published a request for proposals to study Spring Creek and establish the Total Maximum Daily Load (TMDL) to be submitted to the Environmental Protection Agency (EPA).

The successful bidder will also prepare implementation plans and best management practices for both point and nonpoint source pollution throughout the Spring Creek watershed. The watershed includes Hyrum Slough, Wellsville Slough, and other tributaries. Most of the area is agricultural, and includes feedlots, rendering plants, meat packing plants, and Hyrum's waste water treatment plant.

The contract will require the successful bidder to compile existing water quality data, identify the sources and causes of pollution (including those that might result from changes in land use), recommend appropriate management practices to minimize pollution, propose a monitoring program, and assist in presenting information to local workgroups, technical advisory committees and steering committees.

The date of completion has been set for November 1, 2001.

## Water Board Appointed

The County Council has completed the appointments to the eleven-member Cache County Water Policy Advisory Board. They are Noble Erickson, Smithfield, Jim Watterson, Benson, and Ray Bankhead, Wellsville, representing Agriculture; Kevin Hansen, Logan Public Works director, Lloyd Jensen, Amalga, and Taft Barrington, Hyrum, representing municipalities; Paul Riley, Logan, the state water board, and Ann Peralta, Hyde Park, both with water expertise; Bill Bullen, Logan, and Chris Luecke, members at large; and Larry Anhder, Nibley, County Council member.

# COMING EVENTS

*Utah Farm Bureau Midyear Conference*, July 13 & 14, Logan. Contact (801)233-3009.

*Nonpoint Source Conference*, July 18-20, Logan. Contact Jack Wilbur, (801)538-7098

*Cache County Fair*, Aug. 10-12, Logan.

*NACD Southwest Regional Meeting*, Sept. 10-12, Reno, Nev.

## Work group proposes water quality, weed initiatives

Members of the Cache County Local Work Group approved submission of three environmental quality incentives program (EQIP) proposals to provide local landowners in Newton, Paradise and Amalga/Benson with possible financial assistance to address resource concerns in their areas. If approved, implementation of the projects will begin in 2001.

The Newton Creek and Amalga/Benson Project proposals call for establishing “geographic priority areas” under EQIP. Both project proposals would provide financial and technical assistance to address impacts from animal feeding operations along the Bear River and Newton Creek. Project goals are to reduce nutrient loading from over 50 dairies and feedlots located near the waterways.

In Paradise and the surrounding area, a project proposal to combat the invasion of medusahead rye, a noxious annual grass that is extremely competitive and effective in displacing more desirable grasses, has been submitted for approval. Project goals are to eliminate the grass on up to 2,000 acres of impacted pasture and range.

All EQIP proposals for the state will be reviewed and prioritized this fall. Successful applicants will be notified later this year. For more information regarding these or other water quality efforts in Cache County contact Jon Hardman at (435) 753-5616, ext. 25

## Cub River 'Futures Study' completed by USU

The Cub River Watershed Futures Study, Part 1, has been completed by the USU Department of Landscape Architecture and Environmental Planning. Six models were developed, to help decision makers guide future growth and development.

The watershed of the Cub River, a tributary of the Bear River, encompasses 239 square miles in Utah and Idaho. Almost 13,000 people live in the region, and nearly 57 percent of the land area is privately owned.

The Federal government owns nearly 42 percent of the watershed, nearly all of it national forest land. The remainder, 1 percent, is state-owned land.

The history and culture, and geographical characteristics of the Cub River watershed are described. Future scenarios are suggested, ranging from a continuation of the present trend to new planned communities.

The study team found that the greatest issues of concern were private property rights, growth, water quality, pollution, “quality of life” and comprehensive planning.

Six growth models were developed, ranging from continuing the current trends, with present legislation and zoning practices, to new planned communities, and to visual Quality that would limit development to areas not visible from US Highway 91.

## Cub River water quality demonstration projects selected

The Utah Cub River Steering Committee has selected four demonstration projects to highlight conservation practices designed to improve water quality along the Cub River. Project sites and activities include streambank stabilization upstream from the 1600 South Bridge crossing near Lewiston, pasture management and streambank stabilization upstream from the Cannibal Road Bridge crossing near Cove, stormwater runoff management near the Lewiston turnoff at highway 91 and animal waste management along City Creek in Richmond.

For further information call (435)753-5616.

--Jon Hardman, NRCS

# GLEANINGS

Senators Mike Crapo (R-ID) and Bob Smith (R-NH) have introduced S. 2417, which would increase authorization for the EPA’s nonpoint pollution source (NPS) funding to $750 million annually, and direct EPA to contract with the National Academy of Sciences to evaluate the science underlying total maximum daily loads (TMDLs).

The soil survey includes data on 2,075,525,775 acres of lands in the U.S. Replacement cost is about $5 billion, based on only the NRCS cost of 2.50 per acre. The survey is valuable for analyzing and mitigating environmental problems, estimating crop yields, and determining the best management of natural resources.

--NRCS This Week 5/26/00

In Texas, composted manure is protecting fragile soils along roadways, with remarkable results. On one steep, severely eroded overpass that had been barren since 1968, grass was thriving only one month after compost was applied. For more information about the use of compost along roadways, visit the "Technical Documents" section of the NRCS's National Water Management Center home page at <http://wmc.ar.nrcs.usda.gov>.

NRCS This Week, 5/12/00

Thirty-one percent of the cost of a loaf of bread goes to taxes of various forms, according to a study by Americans for Tax Reform.

--Farm Bureau News, June 2000.

About 2.5 million acres offered for the 20th Conservation Reserve Program (CRP) sign-up are acceptable. A total of more than 34 million acres may be enrolled by October.

—USDA

The Utah Geological Survey has sampled 165 wells in Cache County and concluded that 85 percent of the groundwater exceeds drinking water standards.

In fiscal year 1999, nearly $1.5 million in federal funding was distributed to water quality improvement projects in Utah under the Environmental Protection Agency's (EPA's) Section 319 program.

## NACD: Agriculture is key to reducing greenhouse gases

"Carbon sequestration is a major priority," said Don Paxson, chair of the National Association of Conservation Districts' (NACD's) Agricultural Land Resources Committee.

"It's time for farmers to learn about the potential for storing carbon in plants and being paid carbon credits by private sector companies for balancing atmospheric carbon loading." Grass, shrub and tree plantings used for a variety of conservation purposes trap great amounts of carbon.

Carbon storage was an important topic at last winter's NACD annual meeting in Colorado Springs, Colo.

Agriculture can be a major player in the reduction of carbon released into the atmosphere, according to Joel Brown, special assistant to the Chief of the Natural Resources Conservation Service (NRCS). Various agricultural practices such as conservation tillage, cover crops, crop rotation, and replanting and revegetation do a good job of sequestering and trapping the gas.

"Carbon sequestration in soil is a very attractive option," Brown said. "We can start next year versus other industries that may take several years of research to develop recommendations. We are at an advantage because we are dealing with practices that are already tested and in place."

"My company is paying farmers $1 to $3 per acre for carbon credits," said Aldyen Donnelly, president of Greenhouse Emission Management Consortium, of Vancouver, British Columbia. Producers can earn carbon credits by the amount of carbon stored. A good benchmarking system to measure carbon at its source is needed, and could result in higher prices for carbon credits.

## Publication explains carbon crop

Publication of "Growing Carbon: A New Crop That Helps Agricultural Producers and the Climate, Too" has been announced by the NRCS. The brochure addresses climate change and the greenhouse effect, how agricultural producers reduce greenhouse gas emissions, how producers increase the storage of carbon on farm lands, and more.

Copies are available from state USDA Natural Resources Conservation Service offices, or from the SWCS web site www.swcs.org.

## What exactly is carbon sequestration?

Carbon sequestration is the removal of carbon (as carbon dioxide, or $CO_2$) from the atmosphere through photosynthesis, and the storage of carbon in plants or as organic matter in the soil. (In this newsletter, we will generally call it "carbon storage.")

According to *NRCS This Week* (March 10, 2000), worldwide, the carbon in soil organic matter is about twice that in the atmosphere, and 3 times that in vegetation. The oceans contain more than 10 times the amount in soil, vegetation, and air combined. The amount of carbon dioxide in the air has increased 30% from 1850 to 1996.

During the same period, cultivated soils in the U.S. have lost 20 to 70 percent of their natural organic matter. Soil degradation has contributed to the increased atmospheric $CO_2$. It has been estimated that U.S. agricultural lands could store between 7 and 10 percent of all U.S. carbon emissions until new soil carbon equilibrium levels are reached.

The Clinton administration has proposed $251 million for sequestration and bioenergy research, development and deployment. The proposed research would seek a better understanding of how carbon is absorbed by agricultural soils and forests, develop a soil carbon inventory, demonstrate how improved farm practices can help store carbon, and develop programs to reduce emissions by converting waste to energy.

## Farmers enlisted to fight carbon dioxide emissions

A consortium of Canadian energy companies called GEMco is ready to pay some American farmers to adopt a farming style that lets them plow their land much less often, or not at all. GEMco figures that someday, regulators will recognize steps like this as credits, equivalent to reducing emissions at power plants. So it's investing in the idea now to show how it should be carried out.

CQuest Ltd. in West Des Moines, Iowa, has signed up farmers to reduce plowing on 2.5 million acres under the GEMco offer. That might keep about a ton of carbon dioxide per acre out of the atmosphere every year.

-- Associated Press

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